



Faculty of Pharmacy

Department of Pharmacognosy

Course Specifications

Phytotherapy (3274)

1-Basic Information:		
Program on which the course is given:		Bachelor of Pharmaceutical Sciences and Drug Technology
Mandatory or elective element of program:		Mandatory
Department offering the course:		Pharmacognosy
Academic year and level: 2020/ 2021- level 4		Course prerequisite(s): Phytochemistry 2 (3242)
Date of specification approval:		20/9/2021
Title: Phytotherapy Code: 3274		Theoretical: 1 hours (1 credit hour) Practical: 2 hours (1 credit hour) Credit hours: 2
Professional Information:		
2-Overall Aim of Course: <i>The course aims that the pharmacist who is going to graduate should have acquired the competencies of integrating knowledge from basic and applied pharmaceutical sciences (1-1), Applying the principles of body functions to participate in improving health (3-1), providing counseling and education services to patients and communities (3-2) and expressing critical thinking and problem solving (4-1)</i> The course introduces the students to the biological properties of herbal medicines. It also describes the basis of complementary and alternative medicine with emphasis on herbal remedies, nutritional supplements, homeopathies, aromatherapy and their effect on maintaining optimum health and prevention of diseases.		
3-Course Learning Outcomes: <u>N.B: Numbering system: first number stands for Domain; second number stands for Competency; third number stands for Key Element; fourth number stands for Program Learning Outcome.</u>		
<u>1-1-Competency: Integrate knowledge from basic and applied pharmaceutical and clinical sciences to standardize materials, formulate and manufacture products, and deliver population and patient-centered care.</u>		
1-1-4- Articulate knowledge from fundamental sciences to explain drugs’ actions and evaluate their appropriateness, effectiveness, and safety in individuals and populations.		

1-1-4-1 Articulate knowledge from fundamental sciences to explain drugs' actions and evaluate their usefulness, effectiveness, and safety in individuals and populations.

1. Outline different systems of complementary and alternative medicines. (1-1-4-1)

1-1-5- Retrieve information from fundamental sciences to solve therapeutic problems.

- 1-1-5-1 Retrieve information from fundamental sciences and identify different cellular, anatomical, pathological and physiological human structures to solve therapeutic problems.

2. Retrieve therapeutic information of herbs from research data. (1-1-5-1)

3-1- COMPETENCY

Apply the principles of body functions to participate in improving health care services using evidence-based data.

3-1-4 Relate etiology, epidemiology, pathophysiology, laboratory diagnosis, and clinical features of infections/diseases and their pharmacotherapeutic approaches.

3-1-4-2 Predict the proper herbal remedy for patients based on pathophysiology of the disease.

3. Predict the proper herbal remedy based on evidence based-based data. (3-1-4-2).
4. Apply herbal products based on understanding the pathophysiology of diseases. (3-1-4-2)

3-2- COMPETENCY

Provide counseling and education services to patients and communities about safe and rational use of medicines and medical devices.

3-2-1 Integrate the pharmacological properties of drugs including mechanisms of action, therapeutic uses, dosage, contra-indications, adverse drug reactions and drug interactions.

3-2-1-1 Identify the pharmacological properties of drugs including mechanisms of action, therapeutic uses, dosage, contra-indications, adverse drug reactions and drug interactions.

5. Evaluate adverse effects and drug interaction of herbal therapies. (3-2-1-1)

3-2-3 Provide evidence-based information about safe use of complementary medicine including phytotherapy, aromatherapy, and nutraceuticals.

3-2-3-1 Justify safety measures in the use of complementary medicine, including phytotherapy, aromatherapy, and nutraceuticals, according to evidence-based information.

6. Predict safety of herbs in treatment of disease depending on evidence-based data. (3-2-3-1)

4-1- COMPETENCY

Express leadership, time management, critical thinking, problem solving, independent and team working, creativity and entrepreneurial skills.

4-1-1 Demonstrate responsibility for team performance and peer evaluation of other team members, and express time management skills.

4-1-1-2 Illustrate time management skills.

7. Justify time management skills (4-1-1-2).

4-Course Contents:

Week	Topic	No. of Teaching Hours	Lecture (credit hours)	Labs (credit hours)	Course Learning Outcomes
One	Introduction to Complementary and Alternative Medicine	3	1		1
	Lab rules and demo to phytotherapy assignment			1	1
Two	Phytotherapy for Respiratory system disorders	3	1		2,3
	Cases to respiratory system disorders			1	4,5,6
Three	Phytotherapy for CNS disorders	3	1		2,3
	Cases to CNS system disorders			1	4,5,6
Four	Phytotherapy for GIT disorders	3	1		2,3
	Cases to GIT system disorders			1	4,5,6
Five	Phytotherapy for endocrine disorders	3	1		2,3
	Diabetes cases			1	4,5,6
Six	Phytotherapy for liver disorders	3	1		2,3
	Liver disorders cases			1	4,5,6
Seven	Midterm exam				
Eight	Phytotherapy for CVS disorders	3	1		2,3
	Hypertension - Edema - atherosclerosis			1	4,5,6
Nine	Phytotherapy for urinary tract disorders	3	1		2,3
	Urinary tract disorders cases			1	4,5,6
Ten	Phytotherapy for skin disorders	3	1		2,3,4,6
	Skin disorders cases			1	4,5,6
Eleven	Herb-Drug Interactions	3	1		5,6
	Students presentations			1	4,5,6,7
Twelve	Toxicity of herbal medicine	3	1		5,6
	Practical exam			1	
Thirteen	Synergy & Interactions in Phytomedicines	1	1		3,4
Fourteen	Discussion and revision	1	1		2,4

5-Teaching and Learning Methods:

- Lecture
- Practical session
- Case study
- Presentation

6- Teaching and Learning Methods for Probation Students:

- Lectures
- Practical sessions
- Case study
- Presentation

- Extra tutorial

7-Student Assessment:

Written quizzes, presentation and mid-term exam: to assess the ability of students to follow-up the course subjects.

Practical exam: to assess the gained experience in practicing laboratory methods and techniques.

Oral exam: to assess the ability of students in expressing and presenting their knowledge clearly and in systematic approach.

Final written exam: to assess the overall outcomes.

a- Assessment methods:	a. Class work: <ol style="list-style-type: none"> 1. Quizzes 2. Midterm theoretical 3. Punctuality and participation (Assignments) 4. Practical exam b. Final exam <ol style="list-style-type: none"> 1. Written theoretical 2. Oral exam
b- Assessment schedule:	a. Class work: <ol style="list-style-type: none"> 1. Quizzes: <ul style="list-style-type: none"> Quiz I (4th week) Quiz II (11th week) 2. Midterm theoretical (7th week) 3. Assignments (throughout the semester) 4. Practical exam (12th week) b. Final exam <ul style="list-style-type: none"> Written theoretical (15th week) Oral exam (15th week)
c- Weight of assessments:	a. Class work 50 marks (50%) distributed as: <ol style="list-style-type: none"> 1. Quizzes (10%) 2. Midterm theoretical (10%) 3. Punctuality & Participation (Assignments) (10%) 4. Practical exam (20%) b. Final exam <ol style="list-style-type: none"> 1. Written exam (40%) 2. Oral exam (10%) Total percentage 100 marks (100%)

8- List of References:

- a- Course notes: Uploaded on the learning management system (Moodle)
 - i. Lecture notes: Phytotherapy
 - ii. Practical notes: Phytotherapy Lab Manual
- b- References books:
 - b.1. Essential text books:
 - b.1.1. Fundamentals of Pharmacognosy and Phytotherapy, 3rd Edition, by Michael Heinrich, Joanne Barnes, Simon Gibbons, Elizabeth M. Williamson (Authors), Churchill Livingstone, 2018.
 - b.1.2. Tyler's Herbs of Choice: The Therapeutic Use of Phytomedicinals, 3rd edition, by Dennis V.C. Awang, Publication: Boca Raton : CRC Press, 2009.
 - b.1.3. The Desktop Guide to Complementary and Alternative Medicine: An Evidence-based Approach, 2nd edition, by Edzard Ernst, Max H. Pittler, Barbara Wider, Publication: Mosby Elsevier, 2006.
 - b.1.4. Adverse effects of herbal drugs. 1st edition, P.A.G.M. De Smet, K. Keller, R. Hansel, R.F. Chandler. Springer-Verlag, 1992.
 - b.1.5. PDR for Herbal Medicines. 2nd edition, Joerg Gruenwald, Thomas Brendler, Christof Jaenicke. Medical Economics Company, 2000.

b.2. Recommended books:

b.2.1. Principles and Practice of Phytotherapy: Modern Herbal Medicine, 2nd Edition by Kerry Bone, Simon Mills (Authors), Churchill Livingstone, 2013.

c- Periodicals, websites:

└ Planta Medica, Journal of Ethnopharmacology, Phytotherapy Research, Phytomedicine...etc.

11. Web sites: www.botanical.com, Pubmed.com, Scirus.cometc.

9- Facilities required for teaching and learning:

1. Data show
2. White board

Course Instructor: Prof. Dr. Omar M. Sabry

Omar M. Sabry

Head of Department: Prof. Dr. Sameh F. AbouZid.

Sameh AbouZid

Date: 20/9/2021

Approved by HU QAC 2021/2022

Concerning NAQAAE Form No 12

